

Amendments to the Specification:

On page 1, after the title, insert the following:

CROSS-REFERENCE TO RELATED APPLICATION

This application is the U.S. national phase of PCT Appln. No. PCT/EP2005/002271 filed March 3, 2005, which claims priority to German application 10 2004 011 995.3 filed March 11, 2004.

BACKGROUND OF THE INVENTION

1. Field of the Invention

On page 1, before the paragraph beginning on line 8, please add the following:

2. Description of the Related Art

Please amend the paragraph on page 2, line 26, as shown below:

In all the processes known from the prior art, the copolymerization of the silicone macromers with organic monomers in emulsion always proceeds only to an unsatisfactory extent. This leads to free silicone remaining in the dispersion, with corresponding disadvantageous consequences: the silicone migrates out of coatings or films[.]; [[The]] the dispersion can coagulate[.]; and [[The]] the particle size distribution is inhomogeneous. In addition, the tendency to undergo phase separation has an adverse effect on the storage stability.

On page 2, before line 37, please insert the following heading:

SUMMARY OF THE INVENTION

Please amend the paragraphs on page 2, line 37 and page 3, line 6, as shown below:

It was therefore an object of the invention to prepare dispersions and redispersion powders of copolymers having a high content of silicone, by emulsion ~~polymerization of polymerizing~~ silicone macromers with organic monomers[[,]] in such a way that the incorporation of the silicone macromer occurs significantly more effectively than in the prior art. ~~The invention provides~~ These and other objects are achieved by a process for preparing silicone-containing copolymers of an ethylenically unsaturated organic monomer and a silicone macromer in the form of their aqueous polymer dispersions or water-redispersible polymer powders by means of free-radically initiated polymerization in an aqueous medium and, if appropriate, drying of the polymer dispersion obtainable in this way, characterized in that the polymerization is carried out in the presence of a water-soluble initiator and an oil-soluble initiator.

On page 3, before line 17, please insert the following heading:

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Please amend the paragraph beginning on page 3, line 29, as shown below:

Suitable vinyl esters are vinyl esters of unbranched or branched carboxylic acids having from 1 to 15 carbon atoms. Preferred vinyl esters are vinyl acetate, vinyl propionate, vinyl butyrate, vinyl 2-ethylhexanoate, ~~vinyl laurate~~ vinyl laurate, 1-methylvinyl acetate, vinyl pivalate and vinyl esters of α -branched monocarboxylic acids having from 5 to 13 carbon atoms, for example VeoVa9^R or VeoVa10^R (trade names of Resolution Performance Products). Particular preference is given to vinyl acetate.

Please amend the paragraph beginning on page 4, line 14, as shown below:

Suitable dienes are 1,3-butadiene and isoprene. Examples of copolymerizable olefins are ~~ethane~~ ethene and propene. As vinylaromatics it is possible to copolymerize styrene and vinyltoluene. From the group consisting of vinyl halides, it is usual to use vinyl chloride, vinylidene chloride or vinyl fluoride, preferably vinyl chloride.

Please amend the paragraph beginning on page 6, line 14, as shown below:

Suitable silicone macromers are linear, branched and cyclic silicones (polysiloxanes) having at least 10 siloxane repeating units and at least one free-radically polymerizable functional group. The chain length is preferably from 10 to 1000 siloxane repeating units. Ethylenically unsaturated groups such as alkenyl groups are preferred as polymerizable, functional groups. The proportion of silicone in the copolymer is preferably from 5 to 50% by weight, ~~particularly~~ most preferably from 20 to 50% by weight, in each case based on the total weight of the copolymer.

Please amend the paragraph beginning on page 9, line 37, as shown below:

To stabilize the dispersion, it is possible to use anionic and nonionic emulsifiers and also protective colloids, with these also being able to contain polymerizable groups. Preference is given to using nonionic or anionic emulsifiers, ~~particularly~~ most preferably a mixture of nonionic and anionic emulsifiers. As nonionic emulsifiers, preference is given to using condensation products of ethylene oxide or propylene oxide with linear or branched alcohols having from 8 to 18 carbon atoms, alkylphenols or linear or branched carboxylic acids having from 8 to 18 carbon atoms, and also block copolymers of ethylene oxide and propylene oxide. Suitable anionic emulsifiers are, for example, alkylsulfates, alkylsulfonates, alkylaryl sulfates and also sulfates or phosphates of condensation products of ethylene oxide with linear or branched alkyl alcohols having from 3 to 60 EO units, alkylphenols and monoesters or diesters of sulfosuccinic acid. The amount of emulsifier is from 0.1 to 30% by weight, based on the total weight of the organic monomers and silicone macromers used.

Please amend the paragraph beginning on page 11, line 25, as shown below:

In a preferred embodiment, all of the silicone macromer and part of the ethylenically unsaturated organic monomers are initially charged and the polymerization is started in the presence of an oil-soluble initiator, and the remainder of the ethylenically unsaturated organic monomer and the water-soluble initiator are subsequently added. The proportion of ethylenically unsaturated organic monomer in the initial charge is preferably from 0 to 60% by weight, ~~particularly more~~ preferably from 5 to 50% by weight. Likewise, the ~~[[The]]~~ oil-soluble initiator ~~preferably~~ ~~is preferably likewise~~ initially charged in its entirety. The initial charge is preferably polymerized to a conversion of from 10 to 100%, ~~particularly more~~ preferably from 30 to 80%, and the remaining monomers are then metered in and polymerized by means of water-soluble initiators which are likewise fed in.

Please amend the paragraph beginning on page 12, line 4, as shown below:

The emulsifiers and protective colloids can be initially charged for the preparation of the dispersion, or they can be metered in, or part is initially charged and the remainder is metered in. Here, the surface-active substances can be introduced either alone or as a preemulsion with the comonomers.

Please amend the paragraph beginning on page 12, line 20, as shown below:

After conclusion of the polymerization, residual monomers can be removed by carrying out an after-polymerization using known methods, for example by means of an after-polymerization initiated by a redox catalyst. Volatile residual monomers and further volatile, nonaqueous constituents of the dispersion can also be removed by means of distillation, preferably under reduced pressure, if appropriate with inert ~~entrainer~~ entraining gases such as air, nitrogen or steam being passed through or over the dispersion.

Please amend the paragraph beginning on page 12, line 31, as shown below:

The aqueous dispersions which ~~could~~ may be obtained by the process of the invention have a solids content of from 20 to 70% by weight, preferably from 25 to 65% by weight. The solids content can also be adjusted by addition of water after the emulsion polymerization has been concluded. To produce water-redispersible polymer powders, the aqueous dispersions are, if appropriate after addition of protective colloids as atomization aid, dried, for example by means of fluidized-bed drying, freeze drying or spray drying. The dispersions are preferably spray dried. Spray drying is carried out in customary spray drying plants, with atomization ~~being able to be effected, for example,~~ by means of single-fluid, two-fluid or multifluid nozzles or by means of a rotary disk. The outlet temperature is generally in the range from 45°C to 120°C, preferably from 60°C to 90°C, depending on the plant, the Tg of the resin and the desired degree of drying.

Please amend the paragraph beginning on page 13, line 11, as shown below:

In general, the atomization aid is used in a total amount of from 3 to 30% by weight, based on the polymeric constituents of the dispersion. Suitable atomization aids are the abovementioned protective colloids. A content of up to 1.5% by weight of antifoam, based on the base polymer, has frequently been found to be advantageous for atomization. To improve the blocking stability, the powder obtained can be admixed with an antiblocking agent (anticaking agent), preferably in an amount of up to 30% by weight, based on the total weight of polymeric constituents. Examples of antiblocking agents are Ca carbonate or Mg carbonate, talc, gypsum, silica, kaolins, and silicates.

Please amend the paragraph beginning on page 13, line 25, as shown below:

The procedure according to the invention makes it possible to obtain silicone-containing copolymers which display complete or virtually complete bonding of the silicone component to the organic component. Extraction of free silicone macromer from a dried dispersion film is no longer possible or possible only to a very minimal extent. The dispersions obtained in this

way have a series of advantages: advantageous particle size distribution, storage stability, no phase separation, no sweating-out of the silicone, no speck formation, and excellent film formation. Nonsmearing films having high cohesion and sometimes, depending on the polymerization process, highly elastic mechanical properties, are obtained.